

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P312091

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CA08-W2A-U-3500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P312091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L83050-RDP-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 3500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2386.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

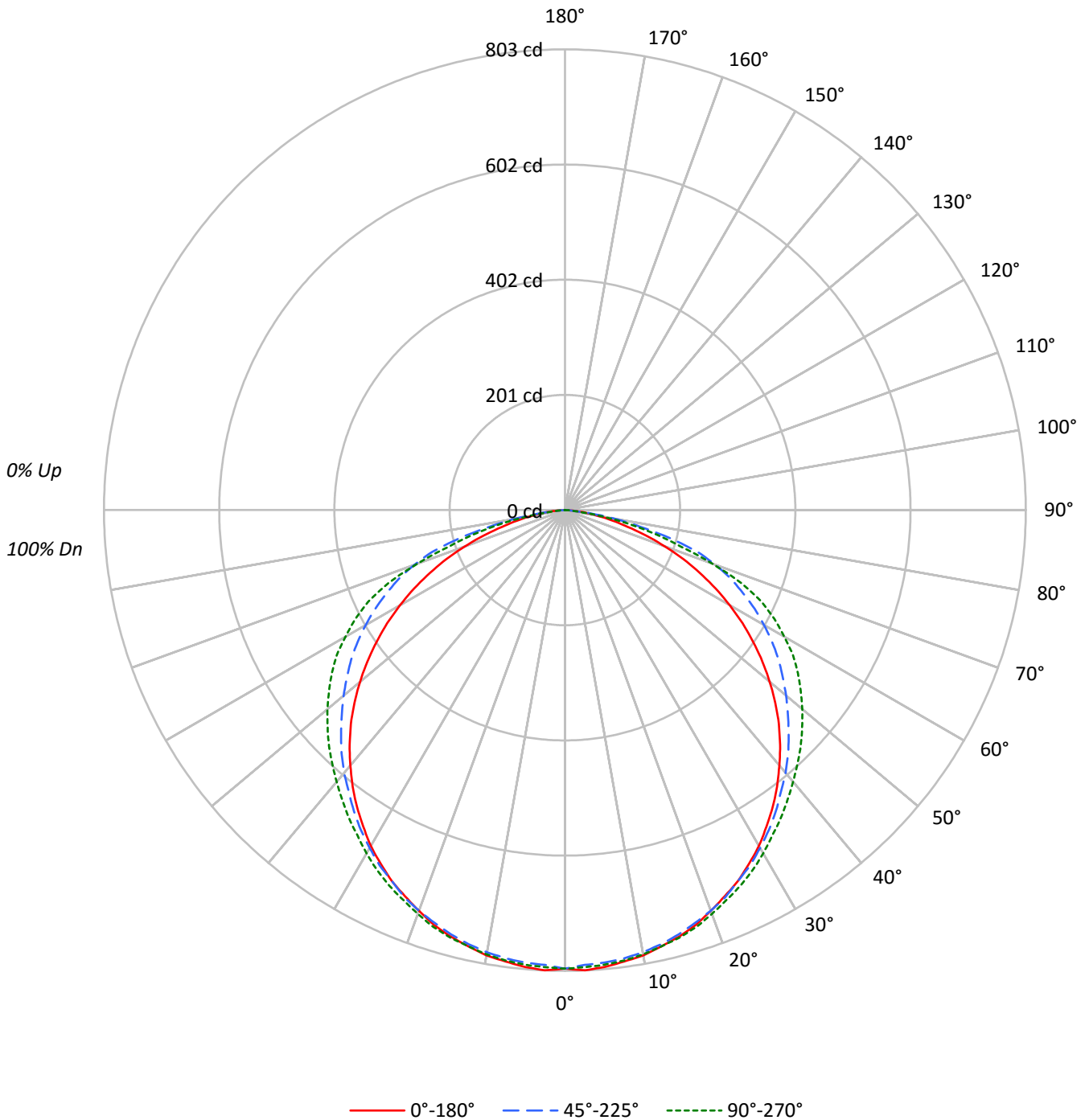
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2150	2150	2150
5°	2159	2139	2149
10°	2153	2138	2148
15°	2143	2133	2148
20°	2128	2128	2144
25°	2118	2118	2146
30°	2101	2113	2147
35°	2075	2105	2154
40°	2042	2101	2172
45°	2006	2098	2212
50°	1950	2106	2262
55°	1879	2132	2325
60°	1785	2155	2376
65°	1649	2183	2408
70°	1466	2198	2154
75°	1181	1975	1724
80°	924	1385	1125
85°	633	401	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	3.2
10°-20°	217.0	9.1
20°-30°	330.4	13.8
30°-40°	402.5	16.9
40°-50°	427.0	17.9
50°-60°	403.0	16.9
60°-70°	325.4	13.6
70°-80°	176.5	7.4
80°-90°	28.6	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	623.1	26.1
0°-40°	1025.6	43.0
0°-60°	1855.6	77.8
0°-90°	2386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	799	797	792	797	795	76
15°	769	768	766	771	771	217
25°	713	712	713	721	723	328
35°	632	635	641	654	656	395
45°	527	535	551	572	581	406
55°	400	417	454	484	496	358
65°	259	291	343	371	378	257
75°	114	166	190	171	166	124
85°	20	22	13	11	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.1	799.1	799.1	799.1	799.1
2.5°	802.9	799.1	793.5	799.1	797.3
5°	799.1	797.3	791.7	797.3	795.4
7.5°	793.5	793.5	788.0	791.7	791.7
10°	788.0	786.1	782.4	788.0	786.1
12.5°	778.6	776.8	774.9	780.5	778.6
15°	769.3	767.5	765.6	771.2	771.2
17.5°	758.2	756.3	754.4	761.9	761.9
20°	743.2	743.2	743.2	750.7	748.8
22.5°	728.3	728.3	730.2	737.7	735.8
25°	713.4	711.6	713.4	720.9	722.8
27.5°	694.8	696.7	698.5	706.0	707.9
30°	676.2	678.1	679.9	689.2	691.1
32.5°	653.8	657.6	661.3	672.5	672.5
35°	631.5	635.2	640.8	653.8	655.7
37.5°	607.3	611.0	618.4	633.3	637.1
40°	581.2	586.8	598.0	612.9	618.4
42.5°	555.1	562.6	575.6	592.4	599.8
45°	527.2	534.6	551.4	571.9	581.2
47.5°	497.4	506.7	527.2	553.2	560.7
50°	465.7	478.7	503.0	530.9	540.2
52.5°	434.0	448.9	478.7	508.5	517.9
55°	400.5	417.3	454.5	484.3	495.5
57.5°	367.0	385.6	428.4	460.1	471.3
60°	331.6	353.9	400.5	432.2	441.5
62.5°	296.2	322.3	372.6	404.2	411.7
65°	258.9	290.6	342.8	370.7	378.1
67.5°	223.5	260.8	312.9	333.4	333.4
70°	186.3	227.3	279.4	285.0	273.8
72.5°	149.0	195.6	242.2	221.7	212.4
75°	113.6	165.8	190.0	171.4	165.8
77.5°	85.7	134.1	134.1	122.9	119.2
80°	59.6	102.5	89.4	78.2	72.6
82.5°	39.1	57.7	46.6	37.3	31.7
85°	20.5	22.4	13.0	11.2	9.3
87.5°	7.5	3.7	1.9	3.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)